engineer other adenovirus genomes. If desired the GATC linker sequence can be removed and the authentic termini regenerated prior to transfection by digestion with KpnI (or ather appropriate enzyme) and incubation with T4 DNA polymerase to create blunt ends (9).--

IN THE CLAIMS

Please cancel claims 30 and 38 in their entirety and without prejudice.

Please amend the claims as follows.

Claim 25. An isolated DNA molecule comprising nucleotides 1-29,574 of SEQ ID NO. 3 or an isolated DNA molecule that hybridizes to the complement of nucleotides 1-29,574 of SEQ ID NO. 3 under high stringency.

Claim 26. The isolated DNA molecule of claim 25, wherein the DNA molecule specifically hybridizes to the complement of nucleotides 1-29,574 of SEQ ID NO. 3 and shares at least 90% identity therewith.

Claim 27. The isolated DNA molecule of claim 25, wherein the nucleotide sequence is a variant of nucleotide 1-29,574 of SEQ ID NO. 3, which comprises at least one nucleotide difference in the sequence that does not alter the amino acid sequences encoded thereby.

Claim 29. An isolated DNA comprising nucleotides 1-29,574 of SEQ ID NO. 3 with the exception that the DNA molecule has all or part of the non-essential portion encoding genetic information that is not essential to the maintenance or

viability of ovine adenovirus (OAV287) has been deleted or altered, said non-essential portion comprising an open reading frame comprising nucleotides 28487 through nucleotide 29044 of the complement of SEQ ID NO. 3 or an open reading frame comprising nucleotides 28541 through nucleotide 28729 of the complement of SEQ ID NO. 3.

Claim 31. A plasmid comprising a bacterial origin of replication and a first nucleotide sequence as set forth in nucleotides 1-29,574 of SEQ ID NO. 3 or a second nucleotide sequence that specifically hybridizes to the complement of nucleotides 1-29,574 of SEQ ID NO. 3 under high stringency conditions.

Claim 35. The plasmid of claim 33 wherein the third nucleotide sequence encodes resistance to an antimicrobial agent.

Claim 36. An adenoviral vector comprising (1) a first nucleotide sequence having the sequence as set forth in nucleotides 1-29,574 of SEQ ID NO. 3 or a second nucleotide sequence that specifically hybridizes to the complement of nucleotides 1-29,574 of SEQ ID NO. 3 under high stringency conditions and (2) a third nucleotide sequence encoding at least one non-adenoviral polypeptide.

Claim 37. The adenoviral vector of claim 36, wherein the second nucleotide sequence specifically hybridizes to the complement of nucleotides 1-29,574 of SEQ ID NO. 3 and shares at least 90% identity therewith.

Claim 39. The adenoviral vector of claim 36 or 37, wherein the non-adenoviral polypeptide is a bacterial, viral, parasite or eucaryotic polypeptide.

Claim 40. The adenoviral vector of claim 39, wherein the non-adenoviral polypeptide is selected from rotavirus VP7sc antigen, *Trichostrongylus colubriformis* 17 kD antigen, *Taenia ovis* 45W antigen and *Lucila cuprina* PM95 antigen.

Claim 41. A method of delivering a DNA molecule encoding at least one non-adenoviral polypeptide to a mammalian target cell comprising transfecting the target cell with an adenoviral vector comprising (1) a first nucleotide sequence set forth in nucleotides 1-29,574 of SEQ ID NO. 3 or a second nucleotide sequence that hybridizes to the complement of nucleotides 1-29,574 of SEQ ID NO. 3 under high stringency conditions; and (2) a third nucleotide sequence encoding at least one non-adenoviral polypeptide, wherein the at least one polypeptide is expressed in the target cell.

Claim 42. A method of delivering a DNA molecule encoding at least one non-adenoviral polypeptide to a mammal comprising administering to the mammal an adenoviral vector comprising (1) a first nucleotide sequence as set forth in nucleotides 1-29,574 of SEQ ID NO. 3 or a second nucleotide sequence that specifically hybridizes to the complement of nucleotide 1-29,574 of SEQ ID NO. 3 under high stringency conditions [and which comprises the ovine adenovirus genome]; and (2) a third nucleotide sequence encoding at least one non-adenoviral

polypeptide, wherein the adenoviral vector transfects at least one cell of the mammal and the at least one polypeptide is expressed therein.

Claim 43. The method of claim 42, wherein the adenoviral vector is administered to a grazing mammal.

Claim 44. The method of claim 43, wherein the adenoviral vector is administered to a sheep.

Claim 45. An adenoviral vector comprising (1) a first nucleotide as set forth in SEQ ID NO. 3 or a second nucleotide sequence that specifically hybridizes to the complement of nucleotides 1-29,574 of SEQ ID NO. 3 under high stringency conditions; and (2) a nucleotide sequence encoding an RNA molecule.

Claim 46. The adenoviral vector of claim 45, wherein the RNA molecule is an antisense RNA molecule or ribozyme.

Claim 47. A method of delivering a DNA molecule encoding a functional RNA molecule to a mammal comprising administering to the mammal an adenoviral vector comprising (1) a first nucleotide sequence as set forth in SEQ ID NO. 3 or a second nucleotide sequence that specifically hybridizes to the complement of nucleotides 1-29,574 of SEQ ID NO. 3 under high stringency conditions [and which comprises the ovine adenovirus genome]; and (2) a nucleotide sequence encoding an RNA molecule, wherein adenovirus vector transfects at least one cell of the